

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method, for submitting print jobs from a client to a reproduction center, via a network, a print job including document data and job specifications regarding processing of said document data, the method comprising the steps of:

creating, on ~~behalf~~ the side of the reproduction center, a job submission form description indicating ~~print~~ job specification options currently available at the reproduction center, said submission form description being ~~suited~~ suitable for electronic transmission via the network to a client and for generating, ~~at~~ on the side of the client, a submission form capable of being filled-in electronically by the client;

~~creating an electronic document file upon receipt of~~ submitting a job request including document data for a document to be printed, from a client to the reproduction center; and

receiving said job request at the reproduction center and, in reaction, creating an electronic document file, storing the document data therein, and sending the submission form description to the client;

and receiving the submission form description at the client and locally generating a corresponding submission form;

storing filling in job specifications in an electronic job ticket linked to said document file upon receipt of the said corresponding submission form at the client and submitting the filled-in submission form from the client with the job specifications to the reproduction center; and

receiving the filled-in submission form at the reproduction center and storing the job specifications in an electronic job ticket linked to said document file.

2. (Original) The method according to claim 1, wherein said electronic job ticket is created upon receipt of said job request as an empty data structure, and said job specifications are stored in the job ticket upon receipt of the submission form from the client.

3. (Original) The method according to claim 1, wherein said electronic job ticket is created and the job specifications stored therein upon receipt of the submission form from the client.

4. (Original) The method according to claim 1, wherein the document data are transmitted to the reproduction center and are then, at the reproduction center, transformed into a format suitable for printing on a printer that has been selected for that purpose.

5. (Original) The method according to claim 1, wherein the document data transmitted to the reproduction center are converted there into a format suitable for showing the final appearance of the printed document and are upon request transmitted in this format to the client for preview purposes.

6. (Original) The method according to claim 1, wherein internet transmission protocols are used for data traffic between the client and the reproduction center.

7. (Original) The method according to claim 6, wherein the submission form description is transmitted to the client as a program

code that is interpreted at the client to electronically create the submission form and allow the client to interact with the reproduction center by entering information and commands into the submission form.

8. (Original) The method according to claim 1, further comprising:

updating, at the reproduction center, information on print capabilities of available printers in the reproduction center; and

automatically selecting one of the available printers for a print job on the basis of said information.

9. (Original) The method according to claim 1, further comprising:

automatically updating, at the reproduction center, information on print capabilities of printers available in the reproduction center; and

automatically updating said submission form description in conformity with said information.

10. (Currently Amended) A reproduction system for processing print jobs, a print job including document data and print job specifications regarding processing of said document data, the system comprising:

a reproduction center including a print engine;

a client computer having printer driver software installed and connected to the reproduction center through a data network; and

~~a print server storing information on print options currently available in the reproduction center and~~ programmed to communicate, as a virtual printer, with the printer driver software installed on said client computer,

~~said communicating the server including, upon reception from a client computer of a:~~

a creation module for creating a job submission form description indicating job specification options currently available at the reproduction center, said submission form description being suitable for electronic transmission via the network to a client and for generating, on the side of the client, a submission form capable of being electronically filled-in by the client with print job specifications,

a receiving module for receiving a print job request including document data for printing, sending a preprogrammed from the driver software in a client computer and for storing said document data,

a sending module activatable upon reception of said print job request, for sending said job submission form description based on said currently available print options information, to the client computer,

said driver software including, in place of a print dialog, a a second receiving module for receiving a filled-in job submission form which is dynamically configured in response to said preprogrammed from the client computer, and

a linking module for linking the print job specifications in the received job submission form description sent by the print server with said stored document data.

11. (Original) The reproduction system according to claim 10, wherein said driver software includes a printer driver which can be called up from a desktop application installed on the client computer.

12. (Original) The reproduction system according to claim 11, wherein the driver software further includes a daemon activated by said printer driver or by the occurrence of a file created by said printer driver, said daemon functioning to establish a data connection between the

client computer and the print server.

13. (Original) The reproduction system according to claim 10, wherein the print server includes

- a file transfer server for exchanging document data with the client computer,

- a memory for storing document files received from the client computer in the form of a data base,

- a memory for storing active server pages for communication via a server with said driver software, and

- a job ticket store for storing the contents of the submission form received through said server as a data base.

14. (Original) The reproduction system according to claim 13, further comprising:

- a device capabilities store storing information on the capabilities of each printer available in the reproduction center; and

- a scheduler communicating with the job ticket store and the device capabilities store and automatically routing each job to a printer capable of executing the job.

15. (Original) The reproduction system according to claim 10, further comprising:

- an operator console connected to said print server for editing said job submission form description.

16. (Original) The reproduction system according to claim 10, further comprising:

- a device capabilities store storing information on the capabilities of each printer available in the reproduction center,

- wherein said print server automatically updates said job

submission form in conformity with said information in the device capabilities store.

17. (Original) The method according to claim 2, wherein the document data transmitted to the reproduction center are converted there into a format suitable for showing the final appearance of the printed document and are upon request transmitted in this format to the client for preview purposes.

18. (Original) The method according to claim 2, wherein internet transmission protocols are used for data traffic between the client and the reproduction center.

19. (Original) The method according to claim 3, wherein the document data transmitted to the reproduction center are converted there into a format suitable for showing the final appearance of the printed document and are upon request transmitted in this format to the client for preview purposes.

20. (Original) The method according to claim 3, wherein internet transmission protocols are used for data traffic between the client and the reproduction center.

21. (Original) The method according to claim 4, wherein the document data transmitted to the reproduction center are converted there into a format suitable for showing the final appearance of the printed document and are upon request transmitted in this format to the client for preview purposes.

22. (Original) The method according to claim 4, wherein internet transmission protocols are used for data traffic between the client and

the reproduction center.

23. (Original) The reproduction system according to claim 11, wherein the print server includes

a file transfer server for exchanging document data with the client computer,

a memory for storing document files received from the client computer in the form of a data base,

a memory for storing active server pages for communication via a server with said driver software, and

a job ticket store for storing the contents of the submission form received through said server as a data base.

24. (Original) The reproduction system according to claim 12, wherein the print server includes

a file transfer server for exchanging document data with the client computer,

a memory for storing document files received from the client computer in the form of a data base,

a memory for storing active server pages for communication via a server with said driver software, and

a job ticket store for storing the contents of the submission form received through said server as a data base.

25. (Currently Amended) An article of manufacture including software, the software comprising:

a first program code segment to cause a computer to create a submission form description indicating print options currently available at a reproduction center, said submission form description being ~~suited~~ suitable for electronic transmission to a client and for generating, at the

client, a submission form capable of being electronically filled-in ~~electronically~~ by the client with print job specifications;

a second program code segment to ~~cause a computer to create an electronic document file upon~~, in reaction to receipt of a job request including document data from the client, ~~and~~ cause the computer to create an electronic document file upon, to store the document data therein, and to send the submission form description to the client; and

a third program code segment to cause a computer to store job specifications in an electronic job ticket linked to said document file upon receipt of the submission form from the client with the job specifications filled-in.

26. (Original) The article according to claim 25, wherein the submission form description caused to be created by the first program code segment is transmitted to the client as a program code that is capable of interpretation at the client to electronically create the submission form and allow the client to interact with the reproduction center by entering information and commands into the submission form.

27. (Original) The article according to claim 25, further comprising:

a fourth program code segment to cause a computer to update information on print capabilities of available printers in the reproduction center.

28. (Original) The article according to claim 27, further comprising:

a fifth program code segment to cause a computer to automatically select one of the available printers for a print job on the basis of said information.

29. (Original) The article according to claim 27, further comprising:

a sixth program code segment to cause a computer to automatically update said submission form description in conformity with said information.

30. (Original) The article according to claim 25, further comprising:

a seventh program code segment to cause a computer to convert the document data transmitted to the reproduction center into a format suitable for showing the final appearance of the printed document; and

an eighth program code segment to cause a computer to transmit, upon request, the converted data in such format to the client for preview purposes.

31. (Original) The article according to claim 25, further comprising:

a ninth program code segment to cause a computer to convert the document data transmitted to the reproduction center into a format suitable for printing on a printer that has been selected for that purpose.

32. (Currently Amended) An article of manufacture including software, the software comprising:

a first program code segment to cause a computer to generate a printer language document for use in generating a printed document when activated by a print function of an application program;

a second program code segment to cause a the computer to establish a network connection with a reproduction center and to send ~~the printer language document~~ a job request to the reproduction center;

and, said job request including the printer language document and being suitable to trigger the reproduction center to send a job submission form description back to the computer; and

a third program code segment to cause a the computer to receive ~~and interpret a~~ said job submission form description from the reproduction center, to generate a job submission form from the job submission form description, to allow an operator to fill in job specifications in the job submission form, and to send the submission form back to the reproduction center once information has been entered therein.

33. (Original) The article according to claim 32, further comprising:

a fourth program code segment to cause a computer to request and receive from the reproduction center a file associated with the printer language document that is suitable for showing the final appearance of the printed document.

34. (Original) The article according to claim 33, further comprising:

a fifth program code segment which is activated by the fourth program code segment to cause a computer to display the file.

35. (Original) The article according to claim 32, wherein the third program code segment does not send the submission form if a user enters a cancel command.

36. (Original) The article according to claim 25, wherein the software is embodied on a computer-readable medium.

37. (Original) The article according to claim 32, wherein the software is embodied on a computer-readable medium.

38. (New) The reproduction system according to claim 10, wherein the print server further includes:

a converter for converting the document data into a format suitable for showing the final appearance of the printed document, and

a transmitter for transmitting upon a request from the printer driver software the converted document data to the client computer for preview purposes.

39. (New) A method, for submitting jobs to a reproduction center, comprising:

creating, on behalf of the reproduction center, a submission form description indicating print options currently available at the reproduction center, said submission form description being suited for electronic transmission to a client and for generating, at the client, a submission form capable of being filled-in electronically by the client;

creating an electronic document file upon receipt of a job request including document data from a client, storing the document data therein, and sending the submission form description to the client; and

storing job specifications in an electronic job ticket linked to said document file upon receipt of the submission form from the client with the job specifications filled-in,

wherein said electronic job ticket is created upon receipt of said job request as an empty data structure, and said job specifications are stored in the job ticket upon receipt of the submission form from the client.